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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,264	02/22/2005	Michael Boyd	MC068YP	4946
210 7590 02/08/2007 MERCK AND CO., INC P O BOX 2000 RAHWAY, NJ 07065-0907			EXAMINER CHENG, KAREN	
			ART UNIT	PAPER NUMBER
			1626	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/08/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/525,264

Applicant(s)

BOYD ET AL.

Examiner

Karen Cheng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 16-21, 23, 24 and 26-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 9-15, 22 and 25 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

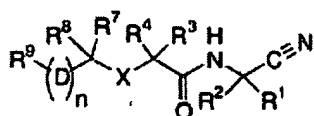
- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/23/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-29 are currently pending in the instant application. Claims 1-15 (in part), 16-21, 22 (in part), 23-24, 25 (in part), and 26-29 are withdrawn from consideration as being drawn to non-elected subject matter.

Response to Election/Restrictions

Applicant's election with traverse of Group A in the reply filed on 1/16/07 is acknowledged. The traversal is on the ground(s) that the variables do not vary extensively and do not result in vastly different compounds and that the compounds of the instant invention are all defined by the following structure:



This argument is not found persuasive because there are too many structural variables (i.e. X can be -O-, -S-, SO₂, and C(R⁵)(R⁶)-) contained in this moiety. As a result, the compounds are divergent and chemically different. The substitution of an S atom for an O atom or an C atom for an O atom, as defined for the X variable would not be considered obvious invention(s) and would result in independent and distinct inventions, despite the compounds' intended use and function as cathepsin K inhibitors. There is nothing of record to show the inventions to be obvious variants, and thus these inventions are independent or distinct. Examination of all compounds would result in an undue search burden on the Examiner. Additionally, the applicant's claimed technical feature does not represent a new contribution of the art (see following prior art

rejections in Office Action), and thus the application is subject to restriction. Therefore this requirement is still deemed proper and is therefore maintained.

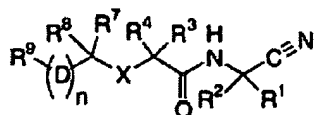
The election of Group A by applicant has resulted in the following elected invention.

Status of the Claims

Claims 1-29 are pending in this application. **Claims 16-21, 23-24, and 26-29** are withdrawn from further consideration by the Examiner as being drawn to non-elected inventions under 37 CFR § 1.142(b). The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search and examination considerations. In addition, a reference that anticipates one invention would not render obvious the other invention.

Scope of Elected Subject Matter

The scope of the invention of the elected subject matter that will be examined and searched is the compounds, pharmaceutically acceptable salts, stereoisomers, and N-oxide derivatives thereof, pharmaceutical compositions and a process for making a pharmaceutical composition of **Claims 1-15, 22, and 25** which are drawn to the core structure of



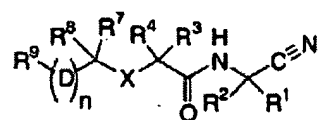
wherein X is O, D is aryl, heteroaryl, C₃₋₈ cycloalkyl or heterocycloalkyl, R⁷ is hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, aryl or heteroaryl, R⁸ is

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hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, n is 2, and the other variables are as defined.

Scope of Withdrawn Subject Matter

As a result of the election and the corresponding scope of the invention, identified supra, the remaining subject matter is the compounds, pharmaceutically acceptable salts, stereoisomers, and N-oxide derivatives thereof, pharmaceutical compositions, a process for making a pharmaceutical composition, and methods of use in **Claims 1-29** which are drawn to the core structure of



wherein X is -S-, SO₂, and C(R⁵)(R⁶), D is aryl, heteroaryl, C₃₋₈ cycloalkyl or heterocycloalkyl; n is 0, 1, or 3 and the other variables are as defined AND wherein X is -O-; D is C₁₋₃ alkyl, C₁₋₃ alkenyl; R⁷ is nitro, cyano, C₃₋₈ cycloalkyl, heterocycloalkyl, -C(O)OR¹⁰, -C(O)R¹⁰, etc; R⁸ is C₁₋₆ alkyloxy, nitro, cyano, aryl, heteroaryl, C₃₋₈ cycloalkyl, heterocycloalkyl, -C(O)OR¹⁰, -C(O)R¹⁰, etc, and the other variables are as defined.

The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element, does not have unity with the elected compound, and therefore is withdrawn by means of a restriction requirement. A reference that anticipates the elected/examined subject matter would not render obvious the non-elected subject matter. This recognized chemical diversity of the functional groups is apparent by the different fields of search, required for the non-

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elected species versus the elected compounds. All compounds falling outside the search strategy of the elected compound and the structure shown above are heretofore directed to non-elected subject matter and are withdrawn from consideration under 35 U.S.C. § 121 and 37 C.F.R. § 1.142(b).

Priority

The application is a 371 of International Application No. PCT/CA03/01346, filed on 09/03/2003, which claims the benefit of foreign priority under 35 U.S.C. 119, to US Provisional Application No. 30/408,064, filed on 09/04/2002.

Information Disclosure Statement

Applicant's Information Disclosure Statement filed on May 23, 2005 has been considered. Please refer to Applicant's copies of the 1449 submitted herewith.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 22 and 25 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a composition comprising a claimed compound and a second specific compound, such as an organic bisphosphonate, such as alendronate, cimadronate, progestogen, estradiol, finasteride, nilutamide, lovastatin, PTH, etc. does not reasonably provide enablement for a composition comprising a claimed compound and a second compound, such as a 5 α -reductase inhibitor, inhibitor of osteoclast proton ATPase, inhibitor of 3-hydroxy-3-methylglutaryl-CoA reductase,

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compound that can selectively antagonize, inhibit or counteract binding of a physiological ligand to the $\alpha_v\beta_3$ or $\alpha_v\beta_5$ integrin, or agent that builds bone. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. § 112, first paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,
7. the quantity of experimentation needed, and
8. the level of the skill in the art.

The nature of the invention

The nature of the invention is a composition including a compound of claim 1 along with a second compound selected from: an organic bisphosphonate, an estrogen receptor modulator, an androgen receptor modulator, an inhibitor of osteoclast proton ATPase, an inhibitor of HMG-CoA reductase, an integrin receptor antagonist, or an osteoblast anabolic agent.

The state of the prior art and the predictability or lack thereof in the art

The state of the prior art is that the pharmacological art involves screening in vitro and in vivo to determine which compounds exhibit the desired pharmacological activities. There is no absolute predictability even in view of the seemingly high level of skill in the art. The existence of these obstacles establishes that the contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting any therapeutic regimen on its face.

It is noted that the pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity. In re Fisher, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. In the instant case, the instant claimed invention is highly unpredictable since one skilled in the art would recognize that in regards to pharmaceutical compositions comprising multiple active agents, one would need to consider drug-drug interactions.

For the preparation of pharmaceutical compositions containing multiple active ingredients, one needs to take into account drug-drug interactions. There are various types of anti-viral agents known in the prior art, which act by differing mechanisms such as virucidal agents, which directly inactivate viruses, antiviral agents, which inhibit viral replication, and immunomodulators, which boost the host immune response. Some of these anti-viral agents may be incompatible with applicants compound of the formula I due to drug-drug interactions. As found in Drugs of Today 39(5), 2003, 301-38, Obach discloses that in regards to any given pharmacokinetic drug-drug interaction, the two

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drugs involved can be considered as either the "perpetrator" drug or the "victim" drug. The perpetrator is the drug that affects the activity of an enzyme or protein involved in the metabolism or disposition of the victim drug. The victim drug is the one that either causes side-effects or toxicity due to increased exposure, or lack of efficacy due to exposure decreased to below that required for therapeutic effect (page 302). There are varying mechanisms of drug interactions such as the reduction in the rate of the metabolism of one drug by another, the irreversible inactivation of drug-metabolizing enzymes, and the exposure to the victim drug is decreased (pages 303-304). Obach also discloses that there are a number of in vitro and in vivo experimental approaches to be taken to determine drug-drug interactions (page 304).

Additionally because there is wide range of receptor modulators and enzyme inhibitors (including inhibitor of osteoclast proton ATPase, an inhibitor of HMG-CoA reductase, an integrin receptor antagonist, or an osteoblast anabolic agent), it is not known what can be encompassed by this definition unless the compound is explicitly described in the instant specification. For example, with regards to an androgen receptor modulator, it is unclear what compounds fall within the category of a 5 α -reductase inhibitor since no direction is given as to determine what would be considered a 5 α -reductase inhibitor. Although applicants cite examples of compounds considered to fall into categories of receptor modulators, inhibitors and agents, the vague definitions for certain compounds along with the unpredictability of drug-drug interactions would fail to enable one of ordinary skill in the art to have sufficient direction to determine what the second compound, such as a 5 α -reductase inhibitor, integrin receptor antagonist, in a

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composition could be, and if in fact the composition would have the same desired effect. Additionally such a definition would encompass compounds that may exist but information about their physiological effects has not yet been fully explored.

The amount of direction or guidance present and the presence or absence of working examples

The specification cites a list of compounds from p. 24-29. However unless a compound is explicitly named, it cannot be determined what compounds can be considered to the second compound of a composition given definitions such as a 5 α -reductase inhibitor, inhibitor of osteoclast proton ATPase, integrin receptor antagonist, etc.

The breadth of the claims

The instant breadth of the rejected claims is broader than the disclosure, specifically, the instant claims include a composition containing a compound from claim 1 in combination with a second compound selected from: an organic bisphosphonate, an estrogen receptor modulator, an androgen receptor modulator, an inhibitor of osteoclast proton ATPase, an inhibitor of HMG-CoA reductase, an integrin receptor antagonist, or an osteoblast anabolic agent. However the specification lists currently known compounds that may fall into this category but fails to adequately provide enough direction to determine what can be considered a second compound.

The quantity or experimentation needed and the level of skill in the art

It would require undue experimentation of one of ordinary skill in the art to ascertain what the second compound of the composition could be. As stated above,

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there is insufficient direction provided as to what exactly can be considered for example, an androgen receptor modulator since insufficient direction towards determination of a 5 α -reductase inhibitor is given and there have been no test results or determination of potential drug-drug interactions between the claimed compound and the second compound. Factors such as "sufficient working examples", "the level of skill in the art" and "predictability", etc. have been demonstrated to be sufficiently lacking in the instant case for the instant composition claims. In view of the breadth of the claims, the chemical nature of the invention and unpredictability of drug-drug interactions, as well as the lack of working examples regarding the composition's activity as claimed, one skilled in the art would have to undergo an undue amount of experimentation to use the instantly claimed invention commensurate in cope with the claims. Absent factual data to the contrary, the amount and level of experimentation needed is undue. Therefore, claims 22 and 25 are rejected under 35 U.S.C. § 112, 1st paragraph.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15, 22 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-15, 22 and 25 recite the limitation "N-oxide derivatives." On p. 34-35 of the specification, examples of N-oxide derivatives are given. Although examples are given, the specification fails to limit and clearly delineate what can be considered a "derivative". According to Hackh's chemical

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dictionary, "derivative" is defined as a compound, usually organic obtained from another compound by a simple chemical process or a organic compound containing a structural radical similar to that from which it is derived (Hackh's chemical dictionary, 1972. Thus multiple derivatives of the compound(s) of formula I having various functional groups and chemical reactivity are encompassed by the instant claim(s). The "derivatives" of the compounds of Claim 1-15, 22 and 25 are not defined in the claims so as to know the metes and bounds of the claims. Therefore, claims 1-15, 22 and 25 are indefinite. This rejection can be overcome by deleting the term derivative from the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

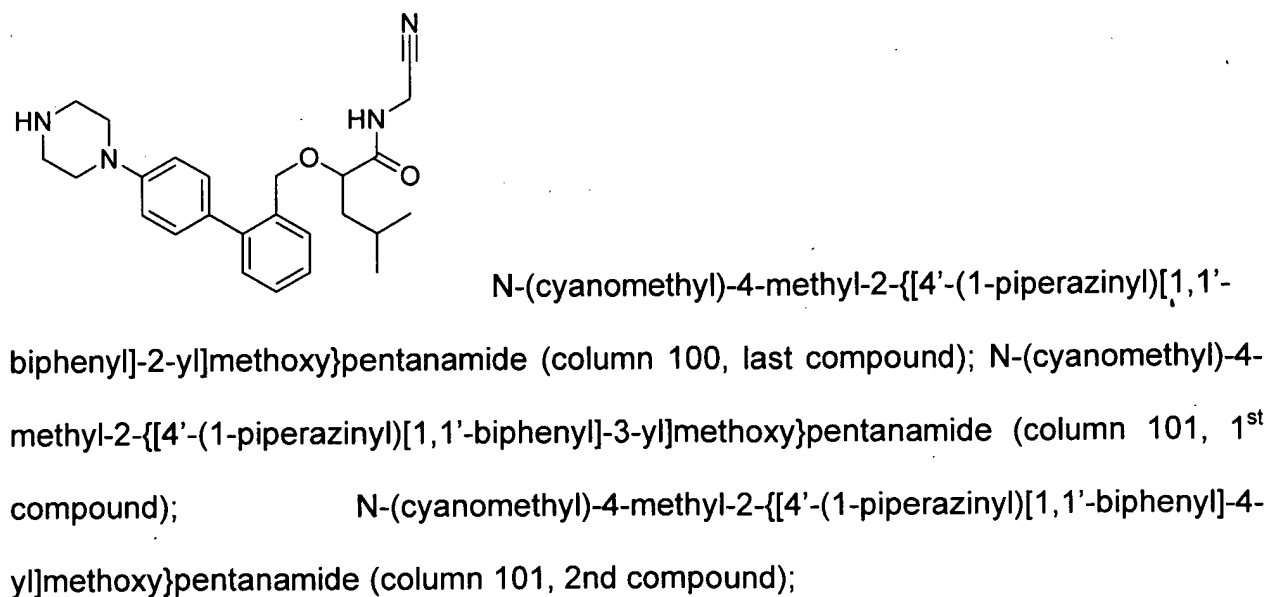
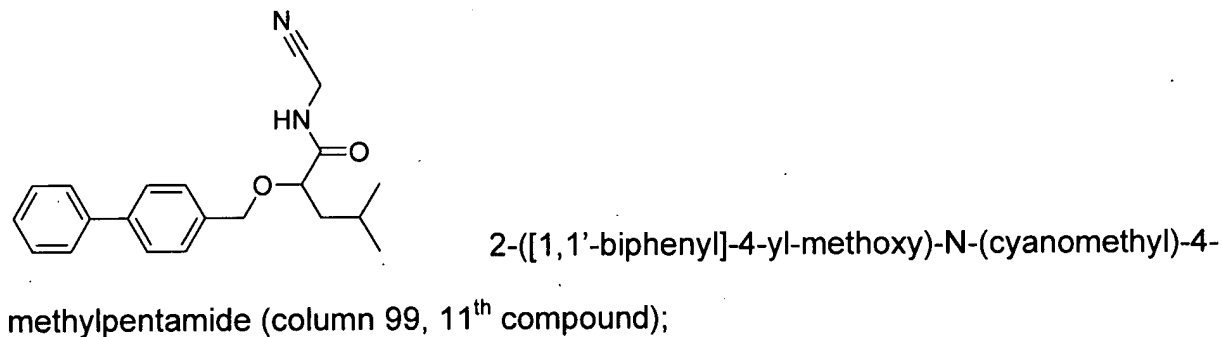
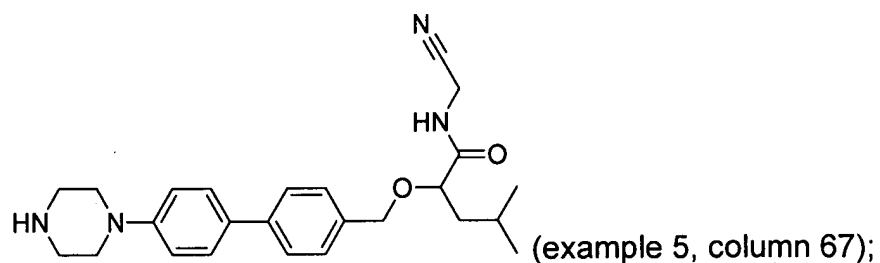
A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

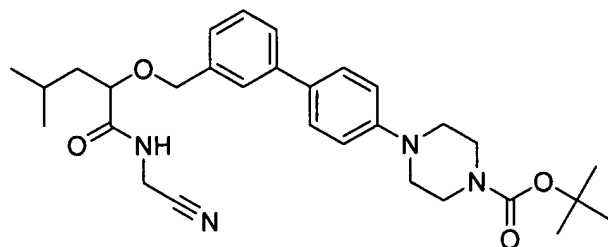
Claim 1-4, 7, 9-15, 22 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Prasit *et al*, see US Pat. No. 7,012,075

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Claims 1-4, 7, 9-15, 22 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Prasit *et al*, see US Pat. No. 7,012,075. Prasit *et al* describe several compounds including:



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tert-butyl-4-{3'-[(1-

{[(cyanomethyl)amino]carbonyl}-3-methylbutoxy)methyl][1,1'-biphenyl]-4-yl)-1-

piperazinecarboxylate (column 177, 14th compound); tert-butyl-4-{4'-[(1-

{[(cyanomethyl)amino]carbonyl}-3-methylbutoxy)methyl][1,1'-biphenyl]-4-yl)-1-

piperazinecarboxylate (column 177, 15th compound); and tert-butyl-4-{2'-[(1-

{[(cyanomethyl)amino]carbonyl}-3-methylbutoxy)methyl][1,1'-biphenyl]-4-yl)-1-

piperazinecarboxylate (column 177, 16th compound). These compounds directly

anticipates applicant's claims of a compound of formula wherein R¹, R², R³ are hydrogen, R⁴ is C₁₋₆ alkyl, X is O, R⁷ and R⁸ are hydrogen, D is aryl or C₃₋₈ cycloalkyl, n is 2 and R⁹ is hydrogen, C₃₋₈ cycloalkyl, or heterocycloalkyl.

Prasit *et al* also describe pharmaceutical combinations of the disclosed compound with other agents such as organic bisphosphonate; an estrogen receptor modulator; an androgen receptor modulator; an inhibitor of osteoclast proton ATPase; an inhibitor of HMG-CoA reductase; an integrin receptor antagonist; an osteoblast anabolic agent (see column 22), which anticipate instant claims 22 and 25.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

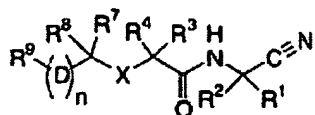
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4, 7, 9-15, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasit *et al.*

Applicants' instant elected invention in claims 1-15, 22, and 25 teach compounds of the following formula, pharmaceutically acceptable salts, stereoisomers, and N-oxide derivatives thereof, pharmaceutical compositions and a process for making a pharmaceutical composition of



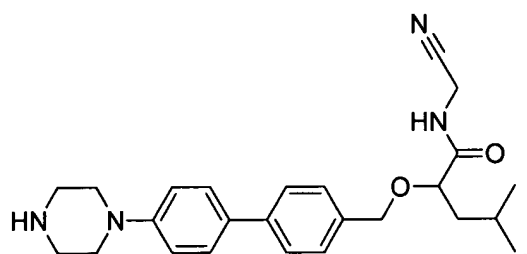
wherein X is O, D is aryl, heteroaryl, C₃₋₈ cycloalkyl or heterocycloalkyl, R⁷ is hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, aryl or heteroaryl, R⁸ is hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, n is 2 and the other variables are as defined as well as pharmaceutical combinations of the disclosed

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compound with other agents such as organic bisphosphonate; an estrogen receptor modulator; an androgen receptor modulator; an inhibitor of osteoclast proton ATPase; an inhibitor of HMG-CoA reductase; an integrin receptor antagonist; an osteoblast anabolic agent

Determination of the scope and content of the prior art (MPEP §2141.01)

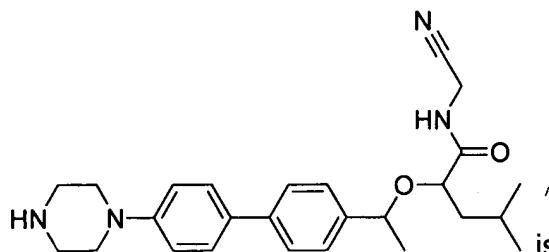
Prasit *et al* teach the compounds mentioned above in the 102 rejection, such as



They also teach pharmaceutical combinations of the disclosed compound(s) with other agents such as organic bisphosphonate; an estrogen receptor modulator; an androgen receptor modulator; an inhibitor of osteoclast proton ATPase; an inhibitor of HMG-CoA reductase; an integrin receptor antagonist; an osteoblast anabolic agent (See US Pat. No. 7,012,075).

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The difference between the prior art of Prasit *et al* and the instantly claimed compounds of claims 1-4, 7, 9-15, 22 and 25 (see for example, N-(cyanomethyl)-4-methyl-2-[1, (4'-piperazin-1-yl-1', 1'-biphenyl-4-yl)ethoxy]pentanamide, line 14, p. 101)



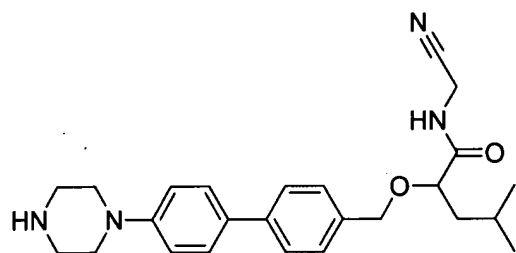
is that the inventions of Prasit *et al* is directed to

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compounds wherein the R₇ or R₈ (as defined in the instant claims) represents a hydrogen atom rather than R₇ or R₈ = alkyl, such as methyl, that is claimed in the instant invention.

Finding of prima facie obviousness- rational and motivation (MPEP §2142-2143)

Prasit *et al* is analogous art because the compounds of the structural formula



wherein the R₇ or R₈ (as defined in the instant claims) is hydrogen, rather than an alkyl group such as methyl, would be considered analogous art. As stated in re Wood, 199 USPQ 137, hydrogen and methyl are deemed obvious variants, and substitution of a methyl for the hydrogen in the R₇ or R₈ position of the compounds of Prasit *et al* would give rise to the compounds of the instant claims. In the absence of unexpected results, one skilled in the art would expect that the instant claims which are directed to compounds found to be inhibitors of cathepsins are analogous to the compounds of Prasit *et al*, i.e. adjacent homologues such as where R₇ or R₈ = H rather than Me, is prima facie. The motivation to make the claimed compounds derives from the expectation that structurally similar compounds are generally expected to have similar properties and have similar utilities. The explicit teaching of Prasit *et al* together with the enabled examples would have motivated one skilled in the art to make the known compounds with such generic teaching with the

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expectation that they would all be inhibitors of cathepsins as taught by Prasit *et al.* Therefore claims 1-4, 7, 9-15, 22 and 25 are rejected under 35 USC 103.

Claim Objections

Claim 25 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 22. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claims 5-6 and 8 are objected to as being dependent upon a rejected base claim, but would appear allowable over the prior art of record if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

Objections: Content of Specification

The specification does not incorporate cross reference to related applications.

The specification should contain the following sections below, as applicable:

- b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cheng whose telephone number is 571-272-6233. The examiner can normally be reached on M-F, 9AM to 5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Karen Cheng
Patent Examiner, AU 1626

REBECCA ANDERSON
PATENT EXAMINER



Joseph McKane
Supervisory Patent Examiner, AU 1626